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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/646,897	12/11/2000	Patrick A. Gane	197317US0PCT	6170

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EXAMINER

HALPERN, MARK

ART UNIT

PAPER NUMBER

1731

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8

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.		Applicant(s)	
	09/646,897		GANE ET AL.	
	Examiner		Art Unit	
	Mark Halpern		1731	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-37 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 7-12, 14-18, 20, 21, 23-26, 29, 31, 32 and 34-36 is/are rejected.
- 7) ☒ Claim(s) 6, 13, 19, 22, 27, 28, 30, 33 and 37 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
 If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
 a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s). ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____. | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1) Acknowledgement is made of preliminary amendment received 10/10/2000, Paper No. 7. Applicants amend claims 5-18, 21, 24-29, 33-34.

Information Disclosure Statement

- 2) The information disclosure statement filed 3/6/2002, fails to comply with 37 CFR 1.98(a)(1), which requires a list of all patents, publications, or other information submitted for consideration by the Office. It has been placed in the application file, but the information referred to therein has not been considered.

Drawings

- 3) Drawings are not referenced in the Specification, nor are they explained in any detail.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 4) Claims 11-12, 14, 20, 23-26, 31, are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

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Claims 14, 20, 23, 31, recite "a Stress Tech machine[®]", which is a commercial term, commercial terms are not permitted in claims.

Claims 24-25 which recite a paper coating color depend from claim 11, which recites a composite compound. Correction is required.

Claim 26 recites "Lehmann", which is a commercial term, commercial terms are not permitted in claims.

A broad range or limitation together with a narrow range or limitation that falls within the broad range or limitation (in the same claim) is considered indefinite, since the resulting claim does not clearly set forth the metes and bounds of the patent protection desired. Note the explanation given by the Board of Patent Appeals and Interferences in *Ex parte Wu*, 10 USPQ2d 2031, 2033 (Bd. Pat. App. & Inter. 1989), as to where broad language is followed by "such as" and then narrow language. The Board stated that this can render a claim indefinite by raising a question or doubt as to whether the feature introduced by such language is (a) merely exemplary of the remainder of the claim, and therefore not required, or (b) a required feature of the claims. Note also, for example, the decisions of *Ex parte Steigewald*, 131 USPQ 74 (Bd. App. 1961); *Ex parte Hall*, 83 USPQ 38 (Bd. App. 1948); and *Ex parte Hasche*, 86 USPQ 481 (Bd. App. 1949).

In the present instance, claim 11, lines 2-3, recites the broad recitation "0.1 % to about 99.9 %", and the claim also recites "preferably 25 % to about 95 %", which is the narrower statement of the range/limitation.

In the present instance, claim 11, lines 7-8, recites the broad recitation "99.9 % to 0.1 %", and the claim also recites "preferably between 75 % and 5 %", which is the narrower statement of the range/limitation.

In the present instance, claim 12 recites the broad recitation "0.01 % to 10 %", and the claim also recites "preferably 0.1 % to 1.5 %", which is the narrower statement of the range/limitation.

In the present instance, claims 14, 20, 23, 31, recite the broad recitation "is higher than", and the claims also recite "at least four times higher than", which is the narrower statement of the range/limitation.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5) Claims 1-2, 5, 7-12, 15-16, 18, 29, 34, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Naydowski (5,605,568).

Claims 1-2, 5, 7-10, 15, 18, 34: Naydowski discloses a coating pigment slurry composite that includes the following ingredients: calcium carbonate, talc, and a binder. Calcium carbonate represents component that has a hydrophilic site. Talc represents component that has an organophilic site. The binder is a polymer or copolymer of acrylic, methacrylic, itaconic, crotonic or fumaric acids (col. 5, lines 1-20, col. 7, lines 30-31). The slurry includes water (col. 3, line 37). The composite components are bound by the binder. The components of the composite are co-structured or co-adsorbed, which the present specification defines as forming a structure comparable to a bond or an adhesion between the components, or in the least it would have been obvious, to one skilled in the art at the time the invention was made, that the composite components are co-structured or co-adsorbed because the components are bound by the binder, and it is the function of a binder to bind the compounds of the composite.

Claims 11-12: the percentage of calcium carbonate is 24 to 64 % by weight; the percentage of talc is 5 to 48 % by weight; the percentage of binder is 1.4 % or less (col. 3, lines 35-46).

Claims 16, 29: the composition is used for coating paper especially for gravure printing (Abstract, and col. 7, lines 15-17).

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6) Claims 1, 3-5, 7-12, 15-16, 18, 21, 26, 29, 34-35, are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Bergmann (5,439,558).

Claims 1, 3-5, 7-10, 15, 18, 34: Bergmann discloses a dry paper coating composite that includes the following ingredients: calcium carbonate, talc, and a binder. Calcium carbonate represents component that has a hydrophilic site. Talc represents component that has an organophilic site. The binder is an acrylic acid ester (col. 5, lines 20-45). The composite components are bound by the binder. The components of the composite are co-structured or co-adsorbed, which the present specification defines as forming a structure comparable to a bond or an adhesion between the components, or in the least it would have been obvious, to one skilled in the art at the time the invention was made, that the composite components are co-structured or co-adsorbed because the components are bound by the binder, and it is the function of a binder to bind the compounds of the composite.

Claims 11-12: the percentage of calcium carbonate is 55 % by weight; the percentage of talc is 40 % by weight; the percentage of binder is 4-7 % or less (col. 4, lines 38-42, col. 5, lines 36-45).

Claims 16, 29: the composition is used for coating paper (Abstract).

Claim 21, 26: the Bergmann paper coating contains color of gloss 50 which is higher than the brightness of the present invention of 48.6 as disclosed in Table 9 of the present invention.

Claim 35: Bergmann discloses a sheet of base paper to be coated (col. 5,

line 20).

7) Claims 14, 17, 20, 23, 31, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Andersen (5,662,731).

Claims 14, 20, 23, 31: Bergmann is applied as above for claim 1, Bergmann fails to disclose the composite yield stress. Andersen discloses a composite of calcium carbonate, talc and a binder of a yield strength of 10 Pa (col. 24, lines 60-65). The yield strength of composite of Andersen exceeds the yield stress of present composite as recited in present Table 3. It would have been obvious, to one skilled in the art at the time the invention was made, to combine the teachings of Andersen and Bergmann, because such a combination would provide a greater range of composite applications in the products of the design of Bergmann.

Claim 17: the application of the Anderson composition includes plastics (col. 1, lines 45-50).

8) Claims 24, 32, 36, are rejected under 35 U.S.C. 103(a) as being unpatentable over Bergmann in view of Arrington-Webb (5,584,924).

Claims 24, 32: Bergmann is applied as above for claim 11, Bergmann fails to disclose the paper coating light scattering coefficient. Arrington-Webb discloses an compound of calcium carbonate and clay of improved opacity having a light scattering coefficient of from about 0.5 to about 1.6 (x 1,000 sq. ft. per pound)(col. 4, lines 10-17), which calculates to from about 102 to about 327 m²/kg. Said scattering coefficient is of range that is greater than the scattering coefficient of the present invention as disclosed in Table 6 of the invention. It would have been obvious, to one skilled in the art at the

time the invention was made, to combine the teachings of Bergmann and Arrington-Webb, because such a combination would extend the application of products of the design of Bergmann.

Claim 36; Arrington-Webb fails to disclose the opacity level, however with light scattering coefficient as disclosed above, it would have been obvious, to one skilled in the art at the time the invention was made, that the opacity would also exceed the opacity of the present invention as disclosed in Tables 7 and 11 of the invention.

Allowable Subject Matter

9) Claims 6, 13, 19, 22, 25, 27-28, 30, 33, 37, would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

The following is a statement of reasons for the indication of allowable subject matter:

The primary reason for indicating allowable subject matter is that the cited prior art does not show: a composite compound of mineral or organic fillers or pigments that has a binding agent supported by gas (claim 6); a composite compound of mineral or organic fillers or pigments that is macroscopically homogeneous (claims 13, 19, 22, 30); a composite compound of mineral or organic fillers or pigments used as a paper coating color or a paper surface treatment of a curve representative of the tack force as claimed

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(claims 27, 33) or of whiteness as claimed (claims 25, 37) or of print density claimed (claim 28)

Conclusion

10) Any inquiry concerning this communication or earlier communications from the examiner should be directed to Mark Halpern whose telephone number is 703-305-4522. The examiner can normally be reached on Mon-Fri, (9:00-5:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Steven Griffin can be reached on 703-308-1164. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7718 for regular communications and 703-305-3599 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.


Mark Halpern
Patent Examiner
Art Unit 1731

March 24, 2003